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| BUILDING  | COO Logo_No Department | DEPARTMENT |
| 303 East B Street, Civic Center, Ontario, CA 91764 | Phone (909)395-2023, Fax (909)395-2180 |

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| --- |
| **2022 *CALGREEN* NONRESIDENTIAL CORRECTION LIST** **(Effective Jan 1, 2023)** |
|  |  |
| **Plan Check No:** | **Review No:**  | **Plan Check Expiration Date: 1 year from submittal** |
| Site Address: | Number of Story: |
| Project Description: | Area square feet: |
| Type of Occupancy: |  |
| Type of Construction: | Sprinklered:  | Part 150 area: YES / NO |
|  |  |
| Applicant:  | Phone:  |
| Owner: | Phone: |
| Architect/Engineer/Draftsman: | Phone:  |
|  |  |
| Reviewed by: | Date: | Ph: (909)395- , e-mail: @ontarioca.gov |
|  |  |
|  |  |

**INSTRUCTIONS:**

### Numbers in bracket [ ] refer to code sections of 2022 California Green Buildings Standards Code (CAL*Green*) effective Jan 1, 2023.

### Correct original drawings. Cloud any changes, revisions, or additions. Resubmit corrected plans/calculations/reports along with these correction sheets in digital format. Go to City of Ontario Building Department web site for “Digital Submittals Instructions” under Applications/Forms -

### <https://www.ontarioca.gov/Building/Applications>.

#### In the Respond column, please indicate the sheet number and detail or note number on the plan where the corrections are made or provide a separate response sheet.

#### Itemize any changes, revisions, or additions made to drawings that are not a direct answer to a correction on a separate sheet.

* **Plans will not be allowed to be resubmitted until all reviewing departments have completed their review and address all their corrections.**

#### Additional plan check fee will be required after third review on hourly rate basis.

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| --- | --- | --- | --- |
| **Item #** | **Sheet #** | **Correction Requested** | **Respond**  |
|  |  |  |  |
| 1 |  | Show the correct address of building on plans.  |  |
| 2 |  | Show the name and address of the owner and person preparing the plan.  |  |
| 3 |  | Indicate on plan the applicable current codes:* 2022 California Green Building Standards Code (*CALGreen*).
* 2022 California Energy Code
 |  |
| 4 |  | Provide an index of drawings on the cover sheet of plans. |  |
| 5 |  | Because of special conditions, the City may require the construction documents to be prepared by a licensed design professional. [102.1] |  |
| 6 |  | The construction documents shall provide sufficient clarify to indicate the location, nature, and scope of the proposed green building features. [102.2] |  |
| 7 |  | * Every newly constructed building, building additions (1,000 sqft or greater), and/or building alterations ($200,000 or more) shall comply with 2022 *CALGreen* effective January 1, 2023 [301.3]. Plans shall indicate method of verification of compliance with all CALGreen requirements. Third party or other methods shall demonstrate satisfactory conformance with mandatory measures [102.3]. **Include City’s Mandatory Measures Checklist copies onto plans.**
* Effective January 1, 2014, nonresidential building additions and alterations shall replace noncompliance plumbing fixtures with water-conserving plumbing fixtures [301.3.1 note]. The requirements shall apply only to the building being added or altered within the scope of permitted work [301.3].
 |  |
| 8 |  | In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy. [302.1] |  |
| 9 |  | Each phase of a project shall comply with those code measures relevant to the building components and systems [303.1].Tenant Improvements shall apply only to the initial tenant or occupant improvement to the project. [303.1.1] |  |
| 10 |  | **Storm Water Pollution Prevention Plan [5.106.1]:****Newly constructed projects and additions which disturb less than one acre of land and are not part of larger common plan of development or sale** shall prevent the pollution of stormwater runoff from the construction activities through local ordinance in Section 5.106.1.1 or Best management practices (BMP) in Section 5.106.1.2**For projects that disturb one or more acres of land or disturb less than one acre of land but are part of a larger common plan of development or sale** comply with the postconstruction requirements detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General Permit.The NPDES permits require postconstruction runoff (post project hydrology) to match the preconstruction runoff (pre-project hydrology) with the installation of postconstruction storm water management measures.  |  |
| 11 |  | **Bicycle Parking [5.106.4]:**For bicycle parking, meet the most restrictive of the requirements of Sections 5.106.4.1 and 5.106.4.2, or local ordinance. *CALGreen* requirements include:1. **Short-Term bicycle parking.**

If the new project or addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors’ entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack. [5.106.4.1]**Exception:** additions or alterations which add 9 or fewer visitor vehicular parking space. 1. **Long-Term bicycle parking. For new buildings** with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupants vehicular parking spaces with a minimum of one space. [5.106.4.1.2]
2. **For additions or alterations that add 10 or more tenant-occupant vehicular parking spaces**, provide secure bicycle parking for 5% of the tenant-occupants vehicular parking spaces being added, with a minimum of one bicycle parking facility. [5.106.4.1.3]
3. **For new shell buildings in phased projects,** provide secure bicycle parking for 5% of the anticipated tenant-occupants vehicular parking spaces with a minimum of one bicycle parking facility. [5.106.4.1.4]
4. Acceptable parking facilities shall be convenient from the street and shall meet one of the following [5.106.4.1.4]:
	1. Covered, lockable enclosures with permanently anchored racks for bicycles;
	2. Lockable bicycle rooms with permanently anchored racks; or
	3. Lockable, permanently anchored bicycle lockers.

**Note:** Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates. |  |
| 12 |  | **Electric Vehicle (EV) Charging [5.106.5.3]:****[N]** Construction to provide electric vehicle infrastructure and facilitate electric vehicle charging shall comply with Section 5.106.5.3.1 and shall be provided in accordance with regulations in the 2022 California Building Code and the 2022 California Electrical Code.**Exceptions:**1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:
	1. Where there is no local utility power supply.
	2. Where the local utility is unable to supply adequate power.
	3. Where there is evidence suitable to the local enforcement agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.
2. Parking spaces accessible only by automated mechanical car parking systems are not required to comply with this code section.
 |  |
| 13 |  | **EV Capable Spaces [5.106.5.3.1]:****[N]** EV capable spaces shall be provided in accordance with Table 5.106.5.3.1 and the following requirements:1. Raceways complying with the California Electrical Code and no less than 1-inch (25 mm) diameter shall be provided and shall originate at a service panel, or a subpanel(s) serving the area and shall terminate in close proximity to the proposed location of the EV capable space and into a suitable listed cabinet, box, enclosure or equivalent. A common raceway may be used to serve multiple EV capable spaces.
2. A service panel or subpanel(s) shall be provided with panel space and electrical load capacity for a dedicated 208/240 volt, 40-ampere minimum branch circuit for each EV capable space, with delivery of 30-ampere minimum to an installed EVSE at each EVCS.
3. The electrical system and any on-site distribution transformers shall have sufficient capacity to supply full rated amperage at each EV capable space.
4. The service panel or subpanel circuit directory shall identify the reserved overcurrent protective device space(s) as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE."

**Note:** A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by an enforcement agency. See Vehicle Code Section 22511.2 for further details.**TABLE 5.106.5.3.1**

|  |  |  |
| --- | --- | --- |
| **TOTAL NUMBER OFACTUAL PARKINGSPACES** | **NUMBER OFREQUIRED EVCAPABLE SPACES** | **NUMBER OF EVCS(EV CAPABLESPACES PROVIDED WITH EVSE)2** |
| 0—9 | 0 | 0 |
| 10—25 | 4 | 0 |
| 26—50 | 8 | 2 |
| 51—75 | 13 | 3 |
| 76—100 | 17 | 4 |
| 101—150 | 25 | 6 |
| 151—200 | 35 | 9 |
| 201 and over | 20 percent of total1 | 25 percent of EV capable spaces1 |

1. Calculation for spaces shall be rounded up to the nearest whole number.
2. The number of required EVCS (EV capable spaces provided with EVSE) in column 3 count toward the total number of required EV capable spaces shown in column 2.
 |  |
| 14 |  | **Electric Vehicle Charging Stations (EVCS) [5.106.5.3.2]:**EV capable spaces shall be provided with EVSE to create EVCS in the number indicated in Table 5.106.5.3.1. The EVCS required by Table 5.106.5.3.1 may be provided with EVSE in any combination of Level 2 and Direct Current Fast Charging (DCFC), except that at least one Level 2 EVSE shall be provided.One EV charger with multiple connectors capable of charging multiple EVs simultaneously shall be permitted if the electrical load capacity required by Section 5.106.5.3.1 for each EV capable space is accumulatively supplied to the EV charger.The installation of each DCFC EVSE shall be permitted to reduce the minimum number of required EV capable spaces without EVSE by five and reduce proportionally the required electrical load capacity to the service panel or subpanel. |  |
| 15 |  | **Use of Automatic Load Management Systems (ALMS) [5.106.5.3.3]:**ALMS shall be permitted for EVCS. When ALMS is installed, the required electrical load capacity specified in Section 5.106.5.3.1 for each EVCS may be reduced when serviced by an EVSE controlled by an ALMS. Each EVSE controlled by an ALMS shall deliver a minimum 30 amperes to an EV when charging one vehicle and shall deliver a minimum 3.3 kW while simultaneously charging multiple EVs. |  |
| 16 |  | **Accessible EVCS [5.106.5.3.4]:**When EVSE is installed, accessible EVCS shall be provided in accordance with the California Building Code, Chapter 11B, Section 11B-228.3.**Note:** For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s). |  |
| 17 |  | **Electric Vehicle (EV) Charging: Medium-Duty and Heavy-Duty [5.106.5.4]:****[N]** Construction shall comply with Section 5.106.5.4.1 to facilitate future installation of electric vehicle supply equipment (EVSE). Construction for warehouses, grocery stores and retail stores with planned off-street loading spaces shall also comply with Section 5.106.5.4.1 for future installation of medium- and heavy-duty EVSE.**Exceptions:**1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:
	1. Where there is no local utility power supply.
	2. Where the local utility is unable to supply adequate power.
	3. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.
 |  |
| 18 |  | When EVSE(s) is/are installed, it shall be in accordance with the 2022 California Building Code, the 2022 California Electrical Code and as follows:**Electric Vehicle Charging Readiness Requirements for Warehouses, Grocery Stores and Retail Stores With Planned Off-Street Loading Spaces [5.106.5.4.1]:****[N]** In order to avoid future demolition when adding EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s) or subpanel(s) shall be installed at the time of construction in accordance with the 2022 California Electrical Code. Construction plans and specifications shall include, but are not limited to, the following:1. The transformer, main service equipment and subpanels shall meet the minimum power requirement in Table 5.106.5.4.1 to accommodate the dedicated branch circuits for the future installation of EVSE.
2. The construction documents shall indicate one or more location(s) convenient to the planned off street loading space(s) reserved for medium- and heavy-duty ZEV charging cabinets and charging dispensers, and a pathway reserved for routing of conduit from the termination of the raceway(s) or busway(s) to the charging cabinet(s) and dispenser(s), as shown in Table 5.106.5.4.1.
3. Raceway(s) or busway(s) originating at a main service panel or a subpanel(s) serving the area where potential future medium- and heavy-duty EVSE will be located and shall terminate in close proximity to the potential future location of the charging equipment for medium- and heavy-duty vehicles.
4. The raceway(s) or busway(s) shall be of sufficient size to carry the minimum additional system load to the future location of the charging for medium- and heavy-duty ZEVs as shown in Table 5.106.5.4.1.

**TABLE 5.106.5.4.1RACEWAY CONDUIT AND PANEL POWER REQUIREMENTS FOR MEDIUM- AND HEAVY-DUTY EVSE [N]**

|  |  |  |  |
| --- | --- | --- | --- |
| **BUILDINGTYPE** | **BUILDINGSIZE(SQ. FT.)** | **NUMBER OFOFF-STREETLOADINGSPACES** | **ADDITIONALCAPACITY REQUIRED(KVA) FOR RACEWAY& BUSWAY ANDTRANSFORMER &PANEL** |
| Grocery | 10,000 to 90,000 | 1 or 2 | 200 |
| 3 or Greater | 400 |
| Greater than 90,000 | 1 or Greater | 400 |
| Retail | 10,000 to 135,000 | 1 or 2 | 200 |
| 3 or Greater | 400 |
| Greater than 135,000 | 1 or Greater | 400 |
| Warehouse | 20,000 to 256,000 | 1 or 2 | 200 |
| 3 or Greater | 400 |
| Greater than 256,000 | 1 or Greater | 400 |
|  |  |  |  |

 |  |
| 19 |  | **Light Pollution Reduction [5.106.8]:****[N]** outdoor lighting systems shall be designed and installed to comply with the following:1. The minimum requirements in the California Energy Code for Lighting Zones 0–4 as defined in Chapter 10 of the California Administrative Code; and
2. Backlight (B) rating as defined in IES TM-15-11 (shown in table A-1 in Chapter 8);
3. Uplight and Glare ratings as defined in *California Energy Code* (shown in Tables 130.2-A and 130.2-B in Chapter 8) and
4. Allowable BUG ratings not exceeding those shown in Table 5.106.8[N], or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

*Exceptions*:1. Luminaires that qualify as exceptions in Sections 130.2(b) and 140.7 of the California Energy Code
2. Emergency lighting
3. Building façade meeting the requirements in Table 140.7-B of the *California Energy Code,* Part 6*.*
4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and methods of construction.
5. Luminaires with less than 6,200 initial luminaire lumens.
 |  |
| 20 |  | **Grading and paving [5.106.10]:**1. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:
	1. Swales.
	2. Water collection and disposal systems.
	3. French drains.
	4. Water retention gardens.
	5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

**Exceptions:** Additions and alterations not altering the drainage path.1. Submit grading and drainage system plans to the Building Department.
 |  |
| 21 |  | Provide documentation to indicate the project meets the requirements of State mandatory 2022 California Energy Code. Enhanced performance criteria are contained in the Appendix Chapters. [5.201.1] |  |
| 22 |  | **Separate submeters** or metering devices shall be installed for new buildings or additions > 50,000 square feet [5.303.1.1]:1. For each individually leased, rented or other tenant space within the building projected to consume more than 100 gal/day, including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop. [5.303.1.1]
2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:
3. Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s)
4. Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s)
5. Steam and hot-water boilers with energy input more than 500,000 Btu/h (147 kW)
6. Any tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day. [5.303.1.2]
 |  |
| 23 |  | **Plumbing fixtures** (water closets and urinals) and fittings (faucets and showerheads) shall not exceed the following [5.303.3]:

|  |  |
| --- | --- |
| **Plumbing fixtures & fittings** | **Maximum** |
| Water closets | 1.28 gallons/flush |
| Showerheads | 1.8 gpm @ 80 psi |
| Kitchen faucets | 1.8 gpm @ 60 psi |
| Nonresidential lavatory faucets | 0.5 gpm @ 60 psi |
| Wash fountains  | 1.8 gpm/20” rim space @ 60 psi |
| Metering faucets  | 0.20 gallons/cycle  |
| Metering faucets for wash fountain  | 0.20 gallons/cycle  |
| Pre-rinse spray valve (with an integral automatic shut off) | 1.6 gpm @ 60 psi |
| Urinals  | 0.125 gallons/flush for wall-mounted type and 0.5 gallons/flush for floor-mounted type or other type |
| Commercial food waste disposer | 1 gpm no load or 10 minutes auto off, 8 gpm max. |
| Pre-rinse spray valves (with an integral automatic shut off) | 1.00 gpm for Product Class 1 (≤ 5.0 ozf)1.20 gpm for product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)1.28 gpm for Product Class 3 (> 8.0 ozf) |

 |  |
| 24 |  | **Commercial food waste disposers** shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no load) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.[5.303.4.1] |  |
| 25 |  | Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources’ Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. [5.304.1] |  |
| 26 |  | Provide a weather-resistant exterior wall and foundation envelope per 2022 CBC Section 1402.2 (Weather Protection), manufacturer’s installation instructions or local ordinances whichever is more stringent. [5.407.1] |  |
| 27 |  | Design and maintain landscape **irrigation** **sprinklers** systems to prevent spray on structures. [5.407.2.1] |  |
| 28 |  | **Design exterior** **entries and/or openings** subject to foot traffic or wind-driven rain to prevent water intrusion into buildings [5.407.2.2]:1. Use features such as awning, overhangs, or recesses (at least 4 feet in depth) and flashing integrated with a drainage plane.
2. Use nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings.
 |  |
| 29 |  | **Reduce construction waste** by recycling or salvaging for reuse a minimum of 65% of the nonhazardous construction waste and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent. [5.408.1] |  |
| 30 |  | Provide a **construction waste management plan** that [5.408.1.1]:1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.
2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
3. Identifies diversion facilities where construction and demolition waste material collected will be taken.
4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.
 |  |
| 31 |  | Utilize a **waste management company** that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with section [5.408.1.2]: *Exceptions to Sections 5.408.1.1 and 5.408.1.2:*1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.
3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets.
 |  |
| 32 |  | **Waste stream reduction alternative:** The combined weight of new construction disposal that does not exceed 2 lbs/sqft of building area may be deemed to meet the 65% minimum requirements [5.408.1.3] |  |
| 33 |  | Provide **documentation** of the waste management plan that meets the requirements listed in Sections 5.408.1.1 through 5.408.1.3, and the plan is accessible to the enforcement authority. [5.408.1.4] |  |
| 34 |  | Additions and alterations to a building or tenant space shall require verification that **Universal Waste** items such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited Universal Waste materials are disposed properly and are diverted from landfills. A list of prohibited Universal Waste materials shall be included in the construction documents. [5.408.2]**Note:** Refer to the Universal Waste Rule link at: <https://dtsc.ca.gov/universalwaste/> . |  |
| 35 |  | 100 % of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. [5.408.3]*Exception:* Reuse, either on-or off-site, of vegetation or soil contaminated by disease or pest infestation. |  |
| 36 |  | Provide readily accessible **areas for recycling** paper, corrugated cardboard, glass, plastics and metals to serve the entire building [5.410.1]. All additions with 30% or more increase in floor area within 12-month period shall provide recycling areas on site [5.410.1.1].**Exception:** addition within a tenant spaceresulting in less than a 30% increase in the tenant space floor area. |  |
| 37 |  | **Commissioning** shall be included in the design and construction process for new buildings 10,000 square feet and over [5.410.2]. Commissioning requirements include:1. Owner’s or Owner representative’s project requirements (OPR). [5.410.2.1]
2. Basis of Design (BOD). [5.410.2.2]
3. Commissioning measures shown in the construction documents.
4. Commissioning plan, demonstrate compliance at plan intake with a completed commissioning plan document prior to permit issuance. [5.410.2.3]
5. Functional performance testing. [5.410.2.4]
6. Documentation and training [5.410.2.5] including a systems manual [5.410.2.5.1] and systems operation training [5.410.2.5.2].
7. Commissioning report. [5.410.2.6]

Detailed requirements are listed within the reference code sections. The scope of required commissioning shall include all building systems and components covered by Title 24, Part 6 (CEC), as well as process equipment and controls, and renewable energy systems. [5.410.2]*Exceptions:*1. Unconditioned warehouses of any size
2. Areas under 10,000 square feet used for offices or other conditioned accessory spaces within unconditioned warehouses.
3. Tenant improvements under 10,000 square feet as described in Section 303.1.1.
4. Open parking garages of any size, or open parking garage areas, of any size, within a structure.
 |  |
| 38 |  | Documented before the design phase of the project begins the **OPR** shall include items listed in Section 5.410.2.1. |  |
| 39 |  | A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project. The Basis of Design **(BOD)** document shall cover the systems listed in Section 5.410.2.2. |  |
| 40 |  | A **commissioning plan** shall be completed prior to permit issuance describing how the project will be commissioned shall include items listed in Section 5.410.2.3.  |  |
| 41 |  | **Functional performance testing** shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. [5.410.2.4] |  |
| 42 |  | A **Systems manual** **and** **systems operations training** are required. [5.410.2.5.1] |  |
| 43 |  | A program for **training** of the appropriate maintenance staff for each equipment type and/or system shall be developed and shall include items listed in Section 5.410.2.5.2. |  |
| 44 |  | A **report of commissioning** process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or representative. [5.410.2.6] |  |
| 45 |  | **Testing and adjusting** of systems shall be required for new buildings less than 10,000 square feet or new systems to serve an addition or alteration. [5.410.4] |  |
| 46 |  | Develop a written plan of procedures for testing and adjusting **systems** [5.410.4.2]:1. Renewable energy systems.
2. Landscape irrigation systems.
3. Water reuse systems.
 |  |
| 47 |  | Perform testing and adjusting procedures in accordance with manufacturer’s specifications and applicable standards on each system. [5.410.4.3] |  |
| 48 |  | Before a new space-conditioning system serving a building or space is operated for normal use, the **HVAC** system shall be **balanced** in accordance with approved National Standards. [5.410.4.3.1] |  |
| 49 |  | After completion of testing, adjusting and balancing, provide a final **report** **of testing** signed by the individual responsible for performing these services. [5.410.4.4] |  |
| 50 |  | Provide the building owner with detailed **operating and maintenance** **manual** instructions and copies of guaranties / warranties for each system prior to final inspection. [5.410.4.5] |  |
| 51 |  | Include a copy of all **inspection verifications and reports** required by the enforcing agency. [5.410.4.5.1] |  |
| 52 |  | Install only a direct-vent sealed-combustion gas or sealed wood-burning **fireplace**, or a sealed woodstove or pellet stove [5.503.1]. **Woodstoves** and pellet stoves shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable [5.503.1.1]. |  |
| 53 |  | If the HVAC system is used during construction, use return air filters with a **MERV of 8**, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992. Replace all filters immediately prior to occupancy. Applies to additions or alterations. [5.504.1] |  |
| 54 |  | At the time of rough installation and during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all **duct** and other related air distribution component openings shall be **covered** with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system. [5.504.3] |  |
| 55 |  | **Finish materials** shall comply with Sections 5.504.4.1 through 5.504.4.4 for VOC limit.  |  |
| 56 |  | **Adhesives, sealants and caulks** used on the project shall meet the requirements of the following standards [5.504.4.1]:1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2.
2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, commencing with Section 94507.
 |  |
| 57 |  | **Architectural paints and coatings** shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3. [5.504.4.3] |  |
| 58 |  | **Aerosol paints and coatings** shall meet the Product-Weighted MIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances (CCR, Title 17, Section 94520 et seq). [5.504.4.3.1] |  |
| 59 |  | **Verification** of compliance with this section shall be provided at the request of the enforcing agency. [5.504.4.3.2] |  |
| 60 |  | All **carpet** installed in the building interior shall meet the requirements of the California Department of Public Health,” Standard Method for the testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,” Version 1.2, January 2017 (Emission testing method for California specification 01350). [5.504.4.4]  |  |
| 61 |  | All **carpet cushion** installed in the building interior shall meet the requirements of the California Department of Public Health,” Standard Method for the testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,” Version 1.2, January 2017 (Emission testing method for California specification 01350). [5.504.4.4.1]. All **Carpet adhesive** shall meet the requirements of Table 5.504.4.1. [5.504.4.4.2] |  |
| 62 |  | Hardwood plywood, particleboard and medium density fiberboard **composite wood products** used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in Table 5.504.4.5. [5.504.4.5] |  |
| 63 |  | Verification of compliance with this section shall be provided as requested by the enforcing agency. **Documentation** shall include at least one of the following [5.504.4.5.3]:1. Product certifications and specifications
2. Chain of custody certifications
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.)
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards.
5. Other methods acceptable to the enforcing agency.
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| 64 |  | For 80% of floor area receiving **resilient flooring**, install resilient flooring shall meet the requirements of the California Department of Public Health,” Standard Method for the testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,” Version 1.2, January 2017 (Emission testing method for California specification 01350). [5.504.4.6]Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits. [5.504.4.6.1] |  |
| 65 |  | In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a MERV of 13. **MERV 13 filters** shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual [5.504.5.3]. *Exception:* Existing mechanical equipment. |  |
| 66 |  | Where outdoor areas are provided for **smoking**, prohibit smoking within 25 feet of building entries, outdoor air intakes, and operable windows and in buildings. Post signage to inform building occupants of the prohibition [5.504.7]. |  |
| 67 |  | Buildings shall meet or exceed the provisions of California Building Code Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). Employ **moisture control** measures by the following methods [5.505.1]:* Design and maintain landscape irrigation systems to prevent spray on structures. [5.407.2.1]
* Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings [5.407.2.2]:
1. Use features such as awning, overhangs, or recesses (at least 4 feet in depth) and flashing integrated with a drainage plane.
2. Use nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings.
 |  |
| 68 |  | For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the 2022 California Energy Code, and Chapter 4 of CCR, Title 8. [5.506.1] |  |
| 69 |  | For buildings or additions equipped with demand control ventilation, **CO2 sensors** and ventilation controls shall be specified and installed in accordance with the requirements of the current edition of the 2019 California Energy Code, Section 120.1(c)(4). [5.506.2] |  |
| 70 |  | Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413 or Outdoor-Indoor Sound Transmission (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2. [5.507.4]*Exception:* Building with few or no occupants such as factories, stadium, storage, enclosed parking structures, and utility buildings. |  |
| 71 |  | **Exterior Noise Transmission Prescriptive method:** Wall and roof-ceiling assemblies exposed to the noise source making up the building addition or altered envelope shall have exterior wall and roof ceiling assemblies meeting a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following building locations [5.507.4.1]:1. Within the 65 CNEL noise contour of an airport.2. Within the 65 CNEL or Ldn noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway noise source as determined by the Noise element of the General Plan. |  |
| 72 |  | Buildings exposed to a noise level of 65 dB Leq-1Hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30). [5.507.4.1.1] |  |
| 73 |  | **Performance method:** For buildings located as defined in Sections A5.507.4.1 or A5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building addition or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq-1Hr) of 50 dBA in occupied areas during any hour of operation. [5.507.4.2] |  |
| 74 |  | Exterior **site features** such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior. [5.507.4.2.1] |  |
| 75 |  | An **acoustical analysis** documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record. [5.507.4.2.2] |  |
| 76 |  | **Interior Sound Transmission.** Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40. [5.507.4.3] |  |
| 77 |  | HVAC, refrigeration, and fire-suppression equipment shall not contain **CFC**s or **Halon**. [5.508.1.1 & 5.508.1.2] |  |
| 78 |  | New commercial refrigeration systems or replacement of existing refrigeration systems when installed in retail food stores 8,000 sqft or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor unit or condensing units shall comply with section 5.508.2 for **supermarket refrigerant leak reduction**. [5.508.2]  |  |
| 74 |  | Special inspection maybe required for all *CALGreen* design features and Mandatory Measures [702.2].  |  |
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|  | **ADDITIONAL CORRECTIONS:** |  |
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